

## Forestry terms found in Sec. 42-80 Fuels Management Standards

(VoR revised 06-06)

1. **Activities slash** – this is branch material from pruning, clippings, and yard waste, trees removed by thinning ...any vegetation you cut or trimmed.
2. **Approved cover** – this refers to long term storage of firewood within 20 feet of homes and structures. Examples of approved covers are: welder's cloth or other non-flammable rated material; metal enclosures; inside garages (not carports) and underneath split level homes that have areas with a closable door. Other coverings for firewood may be approved by the Fire Chief or Forestry Director. From a practical point of view, it is OK to bring firewood up on your deck or porch during the winter months when you will be burning it.
3. **Basal Area (BA)** – this forestry measurement defines the density of trees in an area. The Forestry Department can help you figure this out. When basal areas for individual trees are added up within one acre, it results in basal area per acre. Maximum BA specifications used in Sec 42-80, zones 3 and 4 are used to indicate a starting point for a healthy carrying capacity of the land and refer to "basal area per acre". It is not about the number of trees per acre. It is about the cumulative water and nutrient draw-down on the ecosystem by trees per acre. Fifteen small trees may draw as much as two or three large trees and could have the same BA.

Technically BA per tree is the area of a circle created by viewing a cross section of the tree trunk located at DBH and measured in square feet. That is: BA per tree = area of a circle =  $(3.14) (\text{radius in inches}) (\text{radius in inches}) / 144$  inches/sq.ft. **A tree with a diameter of 14" has about one square foot of basal area....** $BA = (3.14) \times 7 \times 7 / 144 = 1.07\text{sq. ft. of BA.}$

4. **Beetle Habitat** – any dead or dying tree, green firewood, or activity slash greater than three (3) inches in diameter. This material continues to emit a pheromone or smell that attracts bark beetles from up to ¼ mile.
5. **Crown** – this is the top portion of a tree and is made up of the branches and needles. "Distance between crowns" is measured from the outer most branch of one tree to the outer most branch of a second tree. This outer branch distance is also referred to as the "drip-line".
6. **Clumps** – this is a group of "native" trees of similar height where the crowns touch or interlock or the outer branches of the crowns are less than 10 feet apart. Sometimes visualizing and creating clumps with large trees is more difficult. Large tree trunks may be far apart but if you look up, standing between trees and the crowns are closer than 10 feet, it is a clump.

Sometimes smaller junipers and oaks are located under larger pine trees and within the "drip-line". Forestry recommends keeping a variety of tree species and tree sizes for long term forest health. Smaller, healthy trees need not be considered when counting number of trees per clump. They will need to be addressed when considering "ladder fuels" and pruning requirements but in many

cases this type of grouping creates an aesthetic element. Whether these smaller, healthy trees need to be removed or just pruned is, for the most part, up to the property owner. If you are in doubt, leave the trees and the Forester will advise when inspecting for final compliance. *Trees are easy to cut and hard to glue back on!*

7. **DBH** – this is a standard forestry term that describes the size of a tree. It is **Diameter of the tree measured at Breast Height** (4.5 feet above the ground). Trees measured larger than 16” DBH are considered our “legacy” or “old growth” trees. A permit (no fee) is necessary (Sec. 54-133) before removing this size tree. The permit is required so we can keep a record of where these trees are being removed. It also prevents a healthy tree from being removed when it is not necessary.
8. **Development or site development** – refers to any building or construction project that result in altering of the natural landscape on residential or commercial lands.
9. **Drip irrigation** – watering system that uses emitters that control or can be controlled so that a minimal amount of measurable water is applied at regular time intervals to planted or natural vegetation. Drip irrigation watering system is a requirement for replacement trees.
10. **Drip line** – this is the imaginary line drawn vertically from a trees outer most branch down to the ground. Think of the tree as an umbrella in the rain and where the water runs off the umbrella would be its “drip-line”.
11. **Flammable ground material** – this is old lumber, scraps of plywood from projects, leaves from fruit trees or shrubs, branches from trees that have died, old furniture or firewood under decks,...anything that could easily catch on fire.
12. **Ladder fuels** – this is any combination of vegetation such as tall grass, low hanging branches, small trees or shrubs underneath larger trees that would enable fire burning on the ground to rise vertically and catch branches in a taller tree on fire. These are called “ladder fuels” because they can be thought of as rungs of a ladder that fire can climb and get to the crown of a tree. Once fire is burning in the crown of a tree, it is much more difficult for fire personnel to manage and is more easily spread from one tree to another by blowing winds. The Ordinances seek a balance between removing all smaller trees and shrubs (removing the rungs of a ladder) and maintaining a variety of vegetation types and sizes for aesthetic enhancement of a property when creating “clumps”. Forestry can assist property owners with these types of decisions.
13. **Mixed Conifer** – term used to identify a combination of trees or plant community usually growing on a northern exposure. In this area, mixed conifers include: Douglas fir (*Pseudotsuga menziesii*) and White fir (*Abies concolor*).
14. **Native trees** – for Ordinance tree spacing requirements, only 5 tree species are considered “native”: Ponderosa pine (*Pinus ponderosa*); Pinon pine (*Pinus edulis*); Douglas fir (*Pseudotsuga menziesii*); White fir (*Abies concolor*); and three different Junipers ( Alligator - *Juniperous deppeana*, One-seed - *Juniperous*

monosperma, and Rocky mountain - Juniperous scopulorum). These trees are sometimes thought of as “Cedars”. There are no native growing “Cedars” in this area however Eastern Red Cedar (Juniperous virginiana) has been cultivated here.

Two common types of Oak trees that are abundant in this area are Gambels oak (Quercus gambelli) and a hybrid Live oak (Quercus virginiana, var.) The Gambels oak wants to grow to be a tree and the hybrid Live oak (called “scrub oak” or “shinnery”) wants to grow as a shrub. Both have aesthetic characteristics and may be used as such. They are not considered “native” for spacing purposes but are considered ladder fuels for pruning considerations. Check the Forestry photo gallery at our website: [www.voruidoso.com/forestry.html](http://www.voruidoso.com/forestry.html).

15. **Non-decomposing pine needles** – these are the top layer of needles and are usually brown and not broken. The decomposing pine needles are the layer underneath and are usually breaking up and black in color. To avoid erosion, only remove the non-decomposing layer. Never rake all the way down to bare dirt except within 2 feet of your home or garage.
16. **Non-hazardous standing dead** – this refers to trees a property owner may want to keep for wildlife habitat if the tree is located more than 30 feet from their home (zones 3 & 4). Non-hazardous means when it falls over (because it will eventually) it will not fall on a neighbor's house, or any portion of their property.\
17. **Ornamentals** – for Ordinance tree spacing requirements, any tree that is not listed as a “native tree” above.
18. **Planting Wells** – this refers to the area around plant and tree wells that extends up to 25% beyond the radius of the area taken up by the plant when it matures. Example: if a shrub or ground cover grows to a mature size that will cover an area with a radius of two feet (24 inches), the planting well shall be defined as extending an additional six inches. ( $24" \times .25 = 6"$ ). So mulch material may be installed in a 30 inch ( $24" + 6" = 30"$ ) radius around the plant. If planting wells overlap, mulch may be used continuously for aesthetics.
19. **Replacement trees** – trees planted as replacement or compensation for lost basal area when implementing site development projects. A list of possible replacement trees is available at the Forestry web page. Proper installation and watering of replacement trees is essential for survival. Replacement trees must be drip irrigated per Sect. 42-80. It is recommended that a qualified landscaper does the work. Tips from the *Water Use and Conservation Bureau* of the **New Mexico Office of the State Engineer**:
  - Loosen the soil to three to five times the size of the root ball and as deep as the root ball.
  - Carefully remove the root ball from the container and set it on undisturbed soil in the center of the hole. The top of the root ball should be even with the soil level.
  - Trim back the roots that have begun to circle the root ball.
  - Partially fill the hole with soil and firm it slightly. Water thoroughly and finish backfilling.

- Build a small berm of soil around the root ball. Fill the berm with water two or three times to completely wet the area. Place mulch in a protective circle around the tree to a radius of at least three feet.
- Water newly planted trees twice a week for the first growing season.
- Water at the base of the tree and expand outward to the drip line as the tree grows.

20. **Root Collar** – this is the portion of a plant or tree that is right at ground level. Biologically, above the root collar the plant develops stem and leaves for above the ground living. Below the root collar, the plant develops its roots.

Generally, a tree growing naturally will flare slightly at ground level. This indicates the root collar area. To keep the root system functioning effectively, there should never be more than six (6) inches of dirt above the root collar level. Tree wells and other systems to get air, moisture and nutrients to roots should be installed if raising the grade around a tree during site development.

21. **Slash treatment** – this refers to the method of disposing of activity slash. Examples of slash treatments are: depositing activity slash at curb side for Village pick up; chipping activity slash; piling activity slash, lop and scattering activity slash. For the most part, residents are required to fully remove activity slash by depositing at curb side. There are special safety conditions with regard to steep slopes where other slash treatments are allowed. Forestry will advise property owners what is OK and what is not during a lot assessment.

22. **Target Vegetation** – the species of trees that constitute the majority.

23. **Xeriscaping** – the practice of replacing high water use plants with low-water-use grasses, wildflowers, and plants native to the local environment. The practice uses low-volume or drip irrigation and groups plants together with similar watering needs and can save water use by up to 60%. Basic principles include:

- Good planning and design.
- Create practical turf areas.
- Use appropriate plants.
- Improve the soil.
- Use mulches.
- Irrigate effectively.
- Capture rain and snow run-off.
- Maintain your landscape and garden properly.